

```

pragma solidity ^0.5.3;

contract Lottery{

    address public owner;

    address payable [] public players;

    address payable public winner;

    constructor() public{
        owner = msg.sender;
    }

    modifier OwnerOnly{
        if(msg.sender == owner){
            _;
        }
    }

    function deposit() public payable{
        require(msg.value >=1 ether);
        players.push(msg.sender);
    }

    function GenerateRandomNum() private view returns(uint){
        return uint(keccak256(abi.encodePacked(now, block.difficulty,
players.length)));
    }

    function pickWinner() OwnerOnly public{
        uint randomNumber = GenerateRandomNum();
        uint index = randomNumber % players.length; //20 % 8 = 4, 8 %
8 = 20
        //      address payable winner;

        winner = players[index];

        winner.transfer(address(this).balance);

        players = new address payable [](0);
    }
}

```